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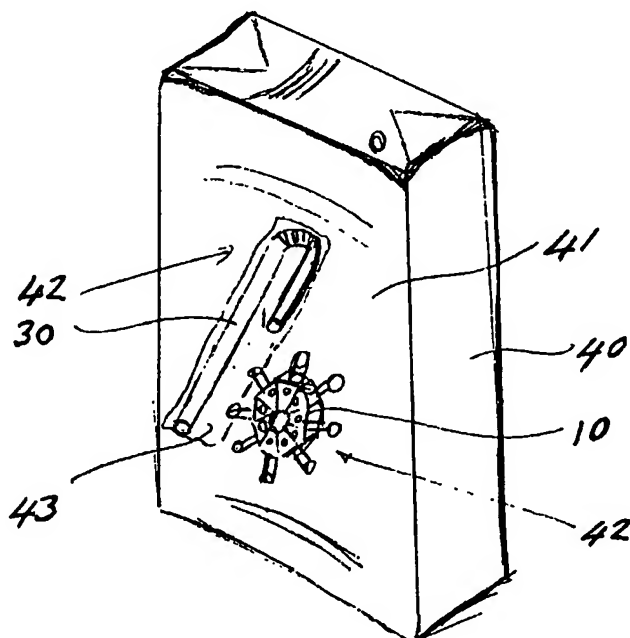
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PACKAGING



(57) Abstract: Packaging involving disposable containers (40) of the type that include a straw (30) attached thereto and a toy building element (10) which may be used in conjunction with other toy building elements and the straws to build a toy.



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PACKAGING

This invention relates to packaging of a toy building element and a beverage container.

5 This invention has particular but not exclusive application to packaging involving disposable containers of the type that include a straw attached thereto and a toy building element which may be used in conjunction with other toy building elements and the straws to build a toy, and for illustrative purposes reference will be made to such application.

10 Toys which include a basic building element having at least one connecting portion which may be selectively connected to another building element having a similar connecting portion by a rod like bridging element are known. Typically the building elements, including the bridging element, are manufactured from a rigid plastics material. The connecting portions generally include a pair of opposing, often
15 outwardly divergent, jaws which are adapted to grip or otherwise inter-lock with an end portion of the bridging element located there between.

Drinking straws are generally manufactured from either wax coated paper or from an extruded, thin walled, plastics material. The open end portions of the straws are easily torn or plastically deformed.

20 Accordingly straws do not readily mate, or remain operatively engaged, with the connecting portions of building elements of the type referred to above and wherein toys constructed from said elements are generally unstable and may fall apart when handled.

It has also been noted that many producers have chosen to sell their
25 beverages in cartons manufactured from paper that is coated with a film of plastics material. These are typically in the shape of a rectangular prism and usually include a straw that is attached thereto which may be used to draw the beverage from the container. The cartons are usually sold in packs of six cartons arranged in two rows and maintained in such a manner by a film of plastics material that is wrapped
30 around the assembly. Such methods of packaging are not very marketable. Nor do they encourage the use of the straws after the beverage has been consumed.

The present invention aims to alleviate at least one of the above disadvantages and to provide an aspect of packaging which will be reliable and

efficient in use. Other objects and advantages of this invention will hereinafter become apparent.

With the foregoing and other objects in view, this invention in one aspect resides broadly in packaging including:

- 5 a container in which there is stored a beverage;
- a straw which is releasably attached to the container and wherein said straw may be used to extract the beverage from said container when detached from said container, and
- 10 a building element which is releasably attached to said container, said building element, when detached from said container, being capable of interlocking engagement with said straw.

Preferably the building element and the straw are used in conjunction with other building elements and straws to make a toy.

- 15 The container may be any particular shape. For example, the container may resemble a prism or pyramid having a rectangular or triangular shaped base.

- The container may be manufactured from a flexible material including a paper or cardboard material, such as a plastics coated paper material. Accordingly, the walls of containers of this type are generally quite flexible and wherein at least some of the walls of the container, when filled with a liquid, may be slightly concave or
- 20 exhibit a depression formed therein. In some embodiments, the size and the shape of the building element may be configured such that it at least partially nests within the concave portion or depression in the wall of the container. The straw may also at least partially nest within this concave portion or depression.

- 25 Further, because of the way containers of the type referred to above are manufactured, the panels forming the base wall generally point towards the interior of the container and wherein the resulting recess or depression formed therein may also be used to accommodate a building element.

- In some embodiments, the building element may be attached to the wall of the container using a suitable adhesive or a piece of adhesive tape. Alternatively, the
- 30 building element may be retained against the wall of the container by wrapping, such as a plastics film that is wrapped around the container.

In another aspect this invention relates to packaging including:

- a plurality of containers which are arranged end to end and/or side by side, said containers being temporarily maintained in said relationship by removable

retaining means, and wherein at least some of said containers are filled with a beverage and wherein at least one of said containers contains a toy which is capable of being connected to a drinking straw. For example, there may be provided six containers arranged in two rows of three containers and wherein five of the
5 containers are filled with a beverage and the sixth container is filled with toy building elements and possibly some straws. Furthermore, at least one of the containers which contains a beverage may also include a drinking straw which may be releasably attached to the exterior of the container and wherein the drinking straw may be used to extract the beverage from said container.

10 Preferably the building element and the straw referred to above are used in conjunction with other building elements and straws to make a toy.

In another aspect this invention relates to a toy building element which is capable of operative engagement with another element which has a socket like portion, such as a drinking straw, said toy building element including:

15 a body portion, and

at least one spigot capable of operative engagement with the socket like portion of the other element. Preferably the fit between the spigot and the socket is an interference fit.

The toy building element may be constructed from a variety of materials. For
20 example, the toy building element may be constructed from a wooden or metal material. However it is preferred that the toy building element is constructed from a plastics material such as a rigid or a semi-rigid plastics material.

The body portion may be any suitable shape. In one embodiment, the body portion may be substantially planer and wherein the spigot or spigots may lie in a
25 plane containing the body portion. In addition, the body portion may be multi-sided, namely, in plan the body portion may resemble a geometric shape such as a triangle, square or a hexagon.

The body portion may also include one or more apertures and/or recesses formed therein which are adapted to receive either a respective spigot or a similarly
30 configured portion of another element. The fit between each aperture/recess and the spigot/other element may be either a loose fit or an interference fit.

The other element may be a thin walled tubular member such as a drinking straw including straws of the type which include a flexible intermediate portion having a concertina like construction.

In another aspect, this invention relates to a method of promoting beverages that are sold in containers, said method including the provision of a toy that is provided with the container. For example, the building element may be attached to the outside of the container in a manner as described above.

- 5 Alternatively, the container may include a token which can be exchanged for the toy building element.

In one embodiment, the token may be attached to a wall of the container. The token may be adapted for separation from the container. For example, the token may be a piece of paper on which information concerning the redemption of the
10 token is printed and wherein the token may be torn from the container if so desired.

Alternatively, the token may comprise the container or a portion of the container itself which may be detachable from the remainder of the container.

In order that this invention may be more easily understood and put into practical effect, reference will now be made to the accompanying drawing which
15 illustrate a preferred embodiment of the invention, wherein:-

FIG.1 is a pictorial view of a basic building element constructed in accordance with the present invention;

FIG. 2 is a pictorial view of another building element constructed in accordance with the present invention;

20 FIG.3 is a pictorial view of a toy constructed from a plurality of building elements of the type illustrated in figure 1 and a plurality of drinking straws;

FIG. 4 is a pictorial view of a beverage container,

FIG. 5 is a pictorial view of a pack of six beverage containers.

Figure 4 shows a container 40 that is generally shaped like a rectangular
25 based prism. The container 40 is manufactured from paper that is coated with a plastics film. As a consequence the walls of the container including the front wall 41 and the opposing rear wall are flexible. Furthermore, the front wall 41 and the rear wall of container 40 often exhibits, or can be manipulated so that they exhibit, a shallow depression 42.

30 The container 40 is provided with a drinking straw 30 that is temporarily contained within a plastics sheath 43 that is releasably attached to the front wall 41. In addition, a basic building element 10 is also shown releasably attached to the front wall 41.

It is envisaged that six containers 40 will be sold together in the manner illustrated in figure 5 and wherein the six containers shall be retained in their respective positions by removable wrapping made from a clear plastics film.

However it will be appreciated that in other embodiments the building elements 10 may have been stored in one of the containers 40 which does not contain any beverage instead of being attached to any of the individual containers 40.

Figure 1 illustrates a basic building element 10 manufactured from a rigid plastics material. The building element 10 includes a substantially planar, octagonally shaped, body portion 11 and eight cylindrically shaped spigots 12, each of which extends outwardly from and is perpendicular to a respective side wall 13, as shown. The body portion 11 also includes a centrally located aperture 14, of constant cross-section, and eight apertures 15, of constant cross-section, spaced equally around said aperture 14.

Figure 2 illustrates another basic building element 20 manufactured from a rigid plastics material. The building element 20 includes an elongate, substantially planar, body portion 21 and two opposing spigots 22. The body portion 21 also includes a centrally located aperture 24, of constant cross-section.

Figure 3 shows a plurality of drinking straws 30 manufactured from a flexible, thin walled, plastics materials. The drinking straws 30 having two opposing end portions 31 and 32, each having a circular cross section which is reasonably constant, and a flexible intermediate portion 33 of a concertina type construction.

The diameter of the aperture 14 is larger than the external diameter of the end portions 31 and 32 of the straws and wherein as a consequence the end portions 31 or 32 when inserted in the aperture 14 from a loose sliding fit.

The diameter of the aperture 24 is smaller than the external diameter of the end portions 31 and 32 of the straws and wherein as a consequence the end portions 31 or 32 when inserted in the aperture 14 from an interference fit.

The diameter of each of the apertures 15 is smaller than the external diameter of the end portions 31 and 32 and wherein as a consequence the end portion 31 or 32 when inserted in any one of the apertures 15 forms an interference fit.

Each spigot 12 and 22 includes a tapered leading portion 18 and a cylindrical main portion 19 and wherein the external diameter of the main portion is slightly larger than the internal diameter of the end portions 31 and 32. Accordingly the

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spigots 12 and 22 form a tight or interference fit when inserted in an end portion 31 or 32 of a straw 30.

A plurality of building elements and a plurality of straws may be combined in a number of ways as illustrated in figure 3 and as described above to build a toy.

5 It is believed that the inclusion of a toy building element, that is adapted to engage a drinking straw, with a beverage container will enhance the marketability of the beverage.

10 It will of course be realised that the above has been given only by way of illustrative example of the present invention and that all such modifications and variations thereto as would be apparent to persons skilled in the art are deemed to fall within the broad scope and ambit of this invention as herein defined in the appended claims.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. Packaging including:
 - 5 a container in which there is stored a beverage;
a straw which is releasably attached to the container and wherein said straw may be used to extract the beverage from said container when detached from said container, and
a building element which is releasably attached to said container, said building
 - 10 element, when detached from said container, being capable of interlocking engagement with said straw.
2. Packaging as claimed in claim 1 wherein said building element at least partially nests within a depression formed in a wall of said container.
- 15 3. Packaging including:
 - a plurality of containers which are arranged end to end and/or side by side, said containers being temporarily maintained in said relationship by removable retaining means, and wherein at least some of said containers are filled with a
 - 20 beverage and wherein at least one of said containers contains a toy which is capable of being connected to a drinking straw.
4. Packaging as claimed in claim 3 wherein there is provided six containers arranged in two rows of three containers and wherein five of the containers are filled
- 25 with a beverage and the sixth container is filled with the toy building elements.
5. A toy building element which is capable of operative engagement with another element which has a socket like portion, such as a drinking straw, said toy building element including:
 - 30 a body portion, and
at least one spigot capable of operative engagement with the socket like portion of the other element.

6. A toy building element as claimed in claim 5, wherein the other element is a drinking straw and the fit between the spigot and the socket is an interference fit.
7. A method of promoting beverages that are sold in containers, said method
5 including the provision of a toy that is provided with the container.

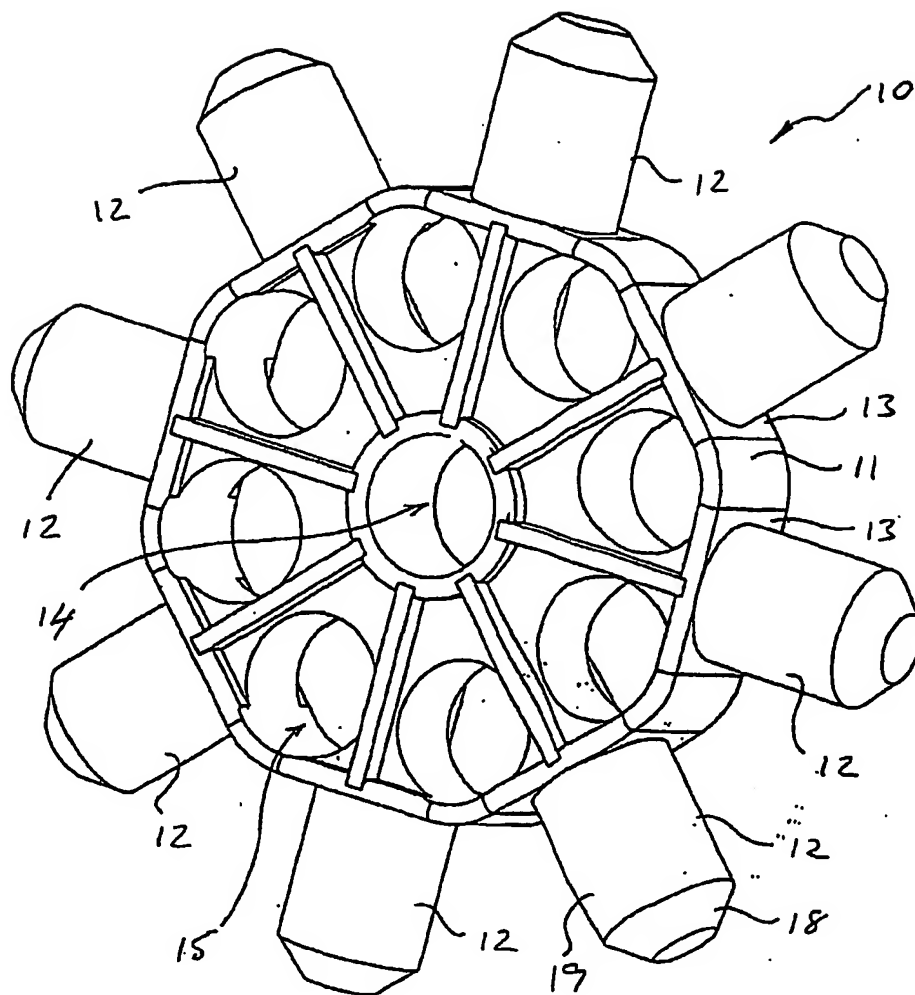


FIG 1.

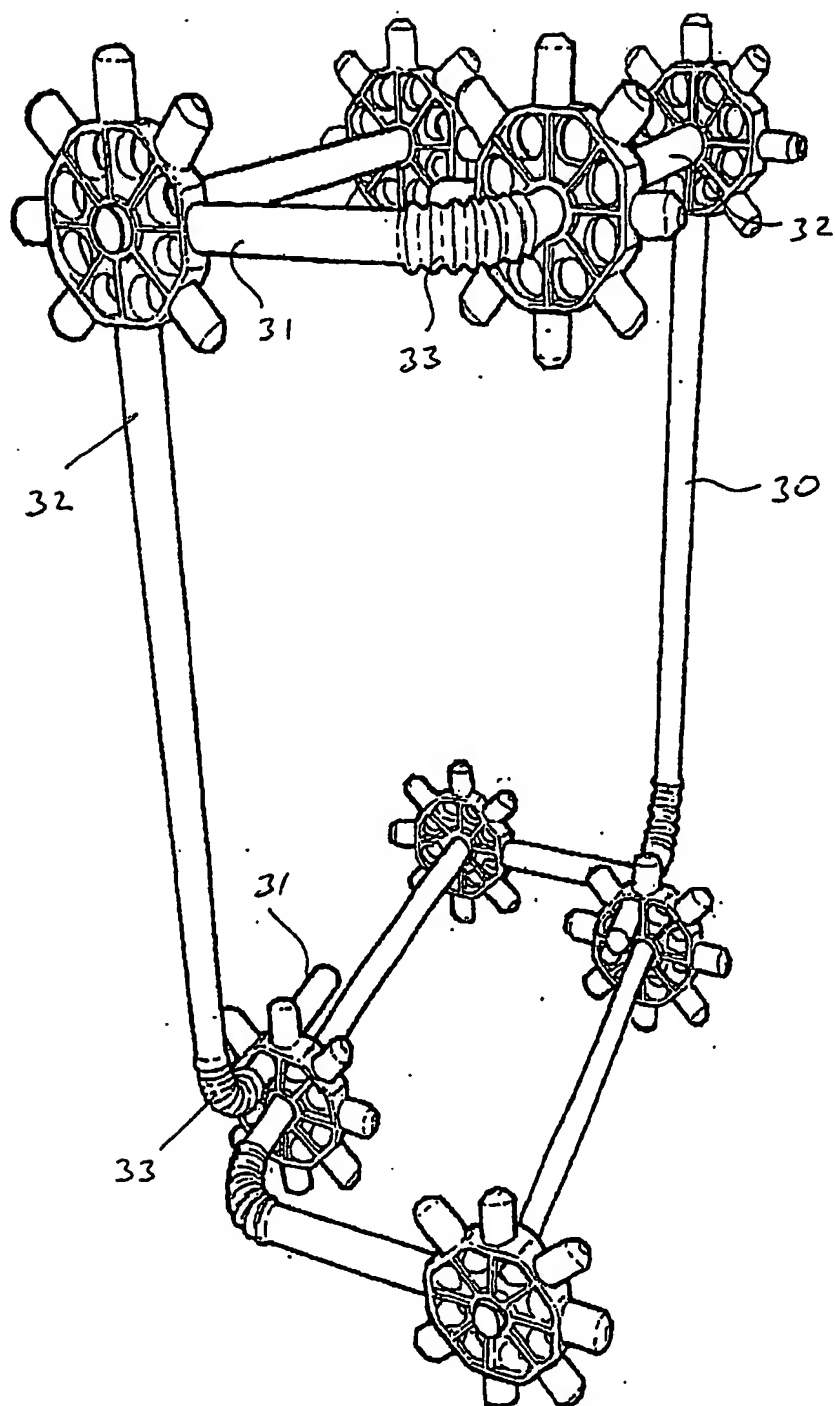


FIG 3.

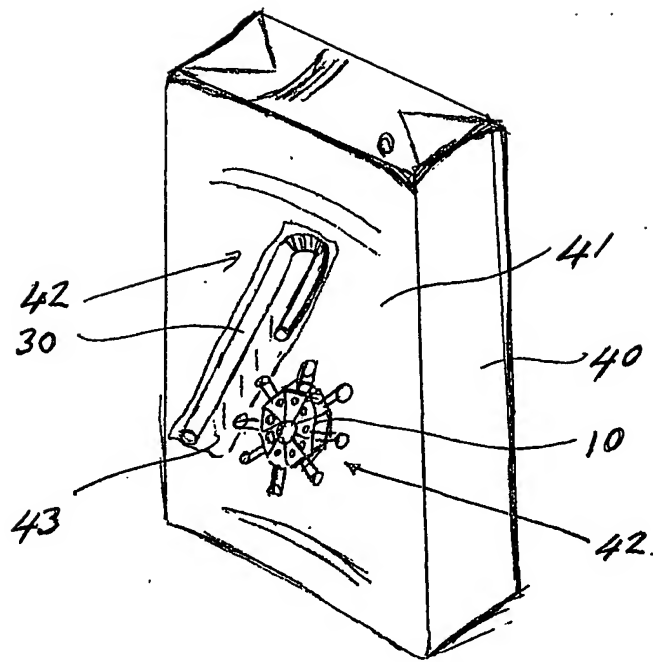


FIG 4.

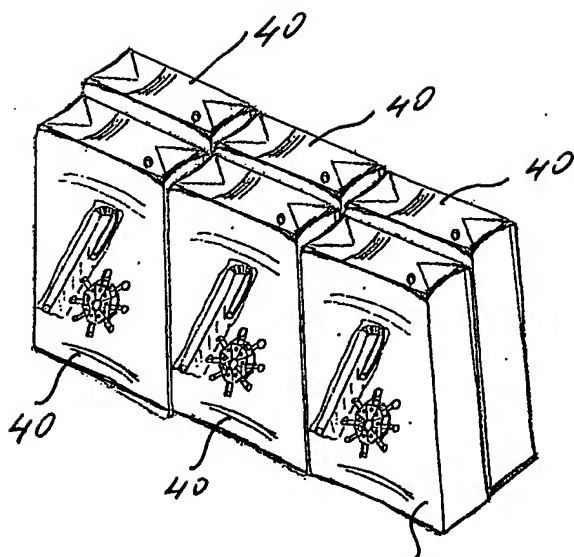


FIG 5.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00471

A. CLASSIFICATION OF SUBJECT MATTERInt. Cl. ⁷: B65D 77/22, 77/24, 77/28, 75/52, 75/54, 81/36; A63H 33/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: B65D 77/22, 77/24, 77/28, 75/52, 75/54, 81/36; A63H 33/-

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

AU: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPAT with keywords

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5393258 A (KARTERMAN) 28 February 1995 Whole document	1-6
X	US 5049105 A (GLICKMAN) 1 April 1991 Whole document	1-6
Y		1-4
X	US 4579281 A (KARTERMAN) 1 April 1986 Whole document	1-6

☒ Further documents are listed in the continuation of Box C
 ☒ See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

5 July 2000

Date of mailing of the international search report

13 JUL 2000

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00471

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5052614 A (XUAN) 1 October 1991 Fig. 1	1-4
X	EP 680719 A1 (SHING HONG INDUSTRIAL CO. LTD.) 8 November 1995 Whole document	1-6
X	DE 29917497 U1 (BECKER) 10 February 2000 Whole document	1-6
X	DE 4230762 A1 (BOCK) 17 March 1994 Whole document	1-6

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00471

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos : 7
because they relate to subject matter not required to be searched by this Authority, namely:
Method of doing business by promoting beverages.
2. ☐ Claims Nos :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1-2
Packaging including a building element
 2. Claims 3-4
Packaging including a toy
 3. Claims 5-6
A toy building element (as reasoned on the extra sheet)
1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
 2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
 3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
 4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00471

Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1-2 are directed to a packaging including a building element capable of interlocking engagement with a straw. It is considered that the underlined feature comprises a first "special technical feature".
2. Claims 3-4 are directed to a packaging including a toy capable of being connected to a drinking straw. It is considered that the underlined feature comprises a second "special technical feature".
3. Claims 5-6 are directed to a toy building element capable of operative engagement with another element. It is considered that said toy building element comprises a third "special technical feature".

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/AU00/00471

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
EP	680719	CA	2122553	US	5518142	US	5520304
		EP	838183				
							END OF ANNEX